

WSDOT Materials Laboratory Library
Selected New Acquisitions - October 2009

HARDCOPY BOOKS, REPORTS, MEDIA

Geotechnical Engineering, Engineering Geology

Geology and Properties of Earth Materials. Transportation Research Board, 2009. Transportation Research Record no. 2101.

625 HRR 2009 no2101

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on "Browse by Issue" and select Volume 2101.

Geomaterials 2009. Transportation Research Board, 2009. Transportation Research Record no. 2104.

625 HRR 2009 no2104

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on "Browse by Issue" and select Volume 2104.

Stereographic Projection Techniques for Geologists and Civil Engineers. Cambridge University Press, 2004.

551.8022 LISLE 2004

Pavements

Construction and Maintenance Practices for Permeable Friction Courses. Transportation Research Board, 2009. NCHRP Report no. 640.

625.7 N2131r 2009 no640

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_640.pdf

Design and Evaluation of Jointed Plain Concrete Pavement with Fiber Reinforced Polymer Dowels.

Federal Highway Administration, 2009. FHWA-HRT-06-106.

625.84 DESIGN 2009

Recycling Concrete Pavements. American Concrete Pavement Association, 2009. Engineering Bulletin EB043P.

625.84 AMERICA 2009

Texturing of Concrete Pavements. Transportation Research Board, 2009. NCHRP Report no. 634.

625.7 N2131r 2009 no634

ELECTRONIC BOOKS (WSDOT Staff Only)

<http://www.civilengineeringnetbase.com/>

Seismic Design Aids for Nonlinear Analysis of Reinforced Concrete Structures.

ELECTRONIC BOOKS, REPORTS & NEWSLETTERS

WSDOT Engineering Publications

Traffic Manual. Revised October 2009. Washington State Dept. of Transportation, 1989. M 51-02.

<http://www.wsdot.wa.gov/Publications/Manuals/M51-02.htm>

AASHTO Publications

Laboratory Testing of Concrete Curing Compounds, Final Report (Spring 2009 Product Submissions). American Association of State Highway and Transportation Officials, 2009. NTPEP Report 14006.1.
http://www.ntpep.org/ProfileCenter/Uploads/CCC_Rpt_14006.1-FINAL_10-2009.pdf

Interdisciplinary Interest

Groundwater and Surface Water in Areas Underlain by the Glacial Aquifer System, Northern United States. U.S. Geological Survey, 2009. Scientific Investigations Report 2009-5086.
<http://pubs.usgs.gov/sir/2009/5086/pdf/sir2009-5086.pdf>

Geotechnical Engineering, Engineering Geology

Comparison of Five Different Methods for Determining Pile Bearing Capacities. Wisconsin Dept. of Transportation, 2009.
<http://on.dot.wi.gov/wisdotresearch/database/reports/07-04pilebearingcapacities-f.pdf>

Geoengineer.org Newsletter, no. 58, October 2009.
<http://www.geoengineer.org/geonews58.htm>

Pavements

Annotated Literature Review for NCHRP Report 640 [Construction and Maintenance Practices for Permeable Friction Courses]. Transportation Research Board, 2009. Web-Only Document no. 139.
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w138.pdf

Asphalt Technology News, v. 21, no. 2, Fall 2009. National Center for Asphalt Technology.
http://www.eng.auburn.edu/center/ncat/news/newsfall_09.pdf

Demonstration of Concrete Maturity Test Process on the TH-694/ TH-35E Interchange: Unweave the Weave. Minnesota Department of Transportation, 2009.
<http://www.lrrb.org/PDF/200926.pdf>

Development of Testing Methods to Determine Interaction of Geogrid-Reinforced Granular Material for Mechanistic Pavement Analysis. Wisconsin Dept. of Transportation, 2009.
<http://on.dot.wi.gov/wisdotresearch/database/reports/07-05geogrid-f.pdf>

Evaluation of Jointed Reinforced Concrete Pavement Rehabilitation on I-64 in the Richmond and Hampton Roads Districts of Virginia. Virginia Transportation Research Council, 2009.
http://www.virginiadot.org/vtrc/main/online_reports/pdf/10-r3.pdf

Introduction of Fracture Resistance to the Design and Evaluation of Open Graded Friction Courses in Florida. Florida Dept. of Transportation, 2009.
http://www.dot.state.fl.us/research-center/Completed_Proj/Summary_SMO/FDOT_BD545_53_rpt.pdf

Investigating Premature Pavement Failure Due to Moisture. Oregon Dept. of Transportation, 2009.
http://www.oregon.gov/ODOT/TD/TP_RES/docs/Reports/2009/Moisture_Damage.pdf

Measurement and Evaluation of Subgrade Soil Parameters: Phase I—Synthesis of Literature. Montana Dept. of Transportation, 2009.
http://www.mdt.mt.gov/research/docs/research_proj/subgrade_soil_eval/final_report.pdf

Recommended Practice for Stabilization of Subgrade Soils and Base Materials. Transportation Research Board, 2009. NCHRP Web-Only Document 144.

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w144.pdf

Recommended Practice for Stabilization of Sulfate Rich Subgrade Soils. Transportation Research Board, 2009. NCHRP Web-Only Document no. 145.

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w145.pdf

Thin Asphalt Overlays for Pavement Preservation. National Asphalt Pavement Association, 2009. Information Series 135.

Free download at <http://store.hotmix.org/index.php?productID=696>

Use of Accelerated Pavement Testing to Evaluate Maintenance and Pavement Preservation Treatments. Transportation Research Board, 2009. Circular E-C139.

<http://onlinepubs.trb.org/onlinepubs/circulars/ec139.pdf>

Use of Fly Ash for Reconstruction of Bituminous Roads. University of Minnesota Center for Transportation Studies, 2009.

<http://www.cts.umn.edu/Publications/ResearchReports/pdfdownload.pl?id=1206>

Value Affect of Construction Incentive Payments on Pavement Performance: Final Report. Michigan Dept. of Transportation, 2009.

http://www.michigan.gov/documents/mdot/MDOT_Research_Report_RC1524_295752_7.pdf

Construction Materials, Testing, Inspection

Cost and Quality Effectiveness of Material and Non-Material Models in Contractor Quality Control (CQC) System. Florida Dept. of Transportation, 2009.

http://www.dot.state.fl.us/research-center/Completed_Proj/Summary_CN/FDOT_BD550_13_rpt.pdf

Hydraulic and Mechanical Properties of Recycled Materials. Minnesota Dept. of Transportation, 2009.

<http://www.cts.umn.edu/Publications/ResearchReports/pdfdownload.pl?id=1220>

Laboratory and Field Procedures Used to Characterize Materials. Texas Dept. of Transportation, 2009.

<http://tti.tamu.edu/documents/0-5798-P1.pdf>

Predicting Asphalt Mixture Skid Resistance Based on Aggregate Characteristics. Texas Dept. of Transportation, 2009.

<http://tti.tamu.edu/documents/0-5627-1.pdf>

Quick Test for Percent of Deleterious Material. Missouri Dept. of Transportation, 2009.

<http://library.modot.mo.gov/RDT/reports/Ri07052/or10005.pdf>

A Review of the Fundamentals of Asphalt Oxidation: Chemical, Physicochemical, Physical Property, and Durability Relationships. Transportation Research Board, 2009. Circular E-C140.

<http://onlinepubs.trb.org/onlinepubs/circulars/ec140.pdf>

WEBSITES OF INTEREST

Note: featured websites are also listed at <http://del.icio.us/WSDOT.MatsLab>

Geoengineer.org has launched its fully searchable online geoengineering library, which contains over 1,400 full-text documents. The database is organized in 21 categories and can now be accessed at <http://www.geoengineer.org/onlinelibrary/>.

One may search by author, title, publication year, keyword, or subject category.

Subject categories include:

- soil mechanics
- rock mechanics
- foundation design
- earthquake engineering and soil dynamics
- environmental geotechnics
- geophysical exploration
- geotechnical investigations & in-situ testing
- ground improvement
- tunneling and underground construction
- dams and embankments
- deep excavations
- pavements
- retaining walls - mechanically stabilized walls (MSW)
- landslides - slope stability
- reliability, risk & probabilistic methods
- engineering geology
- geosynthetics
- computational geomechanics
- discrete element modelling
- instrumentation
- other general